VM4104: TRANSBOUNDARY ANIMAL DISEASES

Effective Term
Semester B 2023/24

Part I Course Overview

Course Title
Transboundary Animal Diseases

Subject Code
VM - Jockey Club College of Veterinary Medicine and Life Sciences
Course Number
4104

Academic Unit
Infectious Diseases and Public Health (PH)

College/School
Jockey Club College of Veterinary Medicine and Life Sciences (VM)

Course Duration
One Semester

Credit Units
2

Level
B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
Completion of Year 4 courses with C grade or above

Precursors
Nil

Equivalent Courses
Nil

Exclusive Courses
Nil

Part II Course Details

Abstract
Globalisation and global trade in livestock products have created new challenges for governments and international organisations (WOAH, WHO, FAO, WTO) in predicting, preventing and controlling transboundary diseases, which can be

defined as epidemic diseases which are highly contagious or transmissible and have the potential for very rapid spread, irrespective of national borders, causing serious socio-economic and public health consequences. These diseases may also constitute a constant threat to the livelihood of livestock farmers and also have a significant detrimental effect on national economics. Hong Kong has been at the epicentre of several transboundary animal diseases (TADs), notably avian influenza and SARS and has suffered economically as well as on a social level. It is imperative that veterinarians are taught to be aware of transboundary diseases and how to handle and control them if they should be detected in a controlled fashion. This course aims to enhance technical, legal, entrepreneurial, leadership and organisational skills of veterinarians involved in animal disease control, with strong emphasis on epidemiology, statistics, exotic and epizootic disease, the role of government veterinary services and health information systems.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Be able to identify clinical signs, clinical course, transmission potential and pathogens associated with TADs.		x	x	
2	Obtain relevant flock and herd history for suspected TADs including avian influenza and foot and mouth disease and recommend surveillance, monitoring and control and prevention methodology for these and other TADs.				
3	Evaluate biosecurity procedures at production animal farms and make recommendations for implementation of best practice biosecurity protocols.		x	x	x
4	Apply animal disease control concepts including depopulation, ring vaccination, compartmentalisation, disposal techniques, infection control procedures and logistics planning for the management of TAD.		x	x	
5	Apply an understanding of the functions of world organisations including WOAH, FAO, WHO and WTO in international trade to scenarios involving TADs. Understand the risk analysis principles for trade, the SPS TBT agreements, the WOAH terrestrial and aquatic animal health codes and the international and local regulatory implications of TADs.		x	x	

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Teaching and Learning Activities (TLAs)

	TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lectures	Overview of TADs	1, 2, 3, 4, 5	16 hr in total
2	Practical *	Computer modelling of TADs	3, 4, 5	3 hr in total
3	Field trip *	Hong Kong border control of animal diseases	3, 5	3 hr in total
4	Project Presentation	Present a topic related to TADs	1, 2, 3, 4, 5	4 hr in total

Additional Information for TLAs

* The practical class and field trip are COMPULSORY. Since there are only one practical and one field trip and they are essential to attaining CILOs, absence(s) from any of these session(s) constitutes a course failure. Permission to make up missed practical may be granted for excused absences only, and only where feasible. Make up is not possible for the field trip. Unexcused absences do not entitle students to any make-up or alternative arrangements.

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Presentation	1, 2, 3, 4, 5	50	

Continuous Assessment (%)

50

Examination (%)

50

Examination Duration (Hours)

2

Assessment Rubrics (AR)

Assessment Task

1. Presentation

Criterion

Ability to research and present on an issue related to TADs demonstrating deep understanding of TADs.

Excellent (A+, A, A-)

Very good understanding of epidemiological concepts of TADs and ability to link TADs with real world issues.

Good (B+, B, B-)

Good understanding of epidemiological concepts of TADs and ability to link TADs with real world issues.

Fair (C+, C, C-)

Competent understanding of epidemiological concepts of TADs and ability to link TADs with real world issues.

Failure (F)

Poor understanding of epidemiological concepts of TADs and ability to link TADs with real world issues.

Assessment Task

2. Examination

Criterion

Ability to understand and compare and contrast attributes and concepts about TADs.

Excellent (A+, A, A-)

Thorough knowledge of TADs and their global impact.

Good (B+, B, B-)

Good knowledge of TADs and their global impact.

Fair (C+, C, C-)

Competent knowledge of TADs and their global impact.

Failure (F)

Poor knowledge of TADs and their global impact.

Additional Information for AR

Mark Range

The following is the mark range for each letter grade that must be used for assessment of any examinations or coursework of BVM courses (VM- and GE-coded) offered by PH and VCS.

Letter Grade	Mark Range	Letter Grade	Mark Range
A+	≥85%	C+	55-59.99%
A	80-84.99%	C	50-54.99%
A-	75-79.99%	F	<50%
B+	70-74.99%		
B	65-69.99%		
B-	60-64.99%		

Part III Other Information

Keyword Syllabus

Transboundary animal diseases, foreign animal disease, epidemic diseases, avian influenza, SARS, veterinary public health

Reading List

Compulsory Readings

	Title
1	Foreign Animal Diseases 7th Ed. Committee on Foreign and Emerging Diseases of the United States Animal Health Association.
2	AUSVET plan. https://www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents/
3	WOAH Terrestrial and Aquatic Animal Health Codes.

Additional Readings

	Title
1	Nil